

WHAT IS CLAIMED IS:

1. A method of network cabling installation between two network components, comprising:

assembling a pre-fabricated network cable at a location distant from the network installation, the network cable including a plurality of conductors;

attaching sub-components on at each end of the cable, and immobilizing each of said conductors within said sub-component for maintaining said conductors in predetermined spatial relationship to each end, said sub-components being of cross section to permit passage through passageways and traverse conduits and encountered obstacles during network wiring installation;

running the cable along a continuous path through encountered obstacles and conduits between first and second network interfaces, the ends of the cable deploying proximate the respective interfaces;

joining the first sub-component in conductive connection to a first network component associated with the first network interface; and

joining the second sub-component in conductive connection to a second network component associated with the second network interface;

thereby permitting communication between the first and second network interfaces.

2. The method according to claim 1, wherein the sub-component is a wire guide and a wire guide cap for immobilizing the conductors, and the method further comprises:

joining the wire guide and a wire guide cap, the wire guide cap having conducting teeth;

contacting the conductors with the conducting teeth; and

forming a conductive connection between the wire guide and the wire guide cap.

3. The method according to claim 1, wherein the network components of generally recognized network connectors and the sub-components are operatively connected to the connectors.

4. The method according to claim 1, wherein the network interfaces are patch panels forming network hubs.

5. The method according to claim 1, wherein the network interfaces are a patch panel and a network terminal device.

6. The method according to claim 1, wherein the cables having sub-components are adapted for reuse with a plurality of components.

7. A system of reusable prefabricated network cables for connecting networks components distant from each other , where the cables must be routed through constrictions; comprising the steps of:

a) determining the smallest cross sectional area of said routing constrictions

- b) pre-fabricating a plurality of cables of predetermined lengths not longer than the maximum allowed run length allowed by wiring standards;
- c) affixing sub-components on each end of each cable, said sub-components having a cross sectional dimension less than the smallest constriction to be encountered
- d) immobilizing and organizing the conductors of the cables at each sub-component so that the order of conductors and relative spatial relationship therebetween remains fixed during the installation of the cables;
- e) providing an array of electrical contact points in said sub-component, said points corresponding to the conductors maintained therein;
- f) routing the cables between the network components; and
- g) engaging said array of contacts points with a like array of contacts on a further connector at each end

8. The system of claim 7 wherein said further connector is an industry standard connector.

9. The system of claim 8 wherein said industry standard connector is an RJ-45 connector.

10. A system of reusable prefabricated network cables for connecting networks components distant from each other , where the cables must be routed through constrictions through a known minimum cross sectional area; comprising the steps of:

- a) pre-fabricating a plurality of cables of predetermined lengths not longer than the maximum allowed run length allowed by wiring standards;
- b) affixing sub-components on each end of each cable, said sub-components having a cross sectional dimension less than the smallest constriction to be encountered
- c) immobilizing and organizing the conductors of the cables at each sub-component so that the order of conductors and relative spatial relationship therebetween remains fixed during the installation of the cables;
- d) providing an array of electrical contact points in said sub-component, said points corresponding to the conductors maintained therein;

e) routing the cables between the network components; and

f) engaging said array of contacts points with a like array of contacts on a further connector at each end

11. The method according to claim 9, wherein the network components are RJ45 connectors and the sub-components are operatively connected to the RJ45 connectors.

12. A method of network cabling installation between two network components, comprising:

assembling a pre-fabricated network cable , the network cable including a plurality of conductors;

attaching sub-components on at least one end of the cable, and immobilizing each of said conductors within said sub-component for maintaining said conductors in predetermined spatial relationship to each end, said sub-components being of cross section to permit passage through passageways and traverse conduits and encountered obstacles during network wiring installation;

running the cable along a continuous path through encountered obstacles and conduits between first and second network interfaces, the at least one end of the cable deploying proximate the respective interfaces;

joining the first sub-component in conductive connection to a first network component associated with the first network interface; and

joining the second sub-component in conductive connection to a second network component associated with the second network interface;
thereby permitting communication between the first and second network interface

13. The method according to claim 12 further including the steps of:

- a) Bundling a plurality of cables into a single cable group, said bundle having a longitudinal extent corresponding to its length;
and
- b) Offsetting the subcomponent ends of each cable so that at no point along the cable bundle are there two sub-components at the same point along the bundle's longitudinal extent, whereby the bundle is maintained with the smallest possible cross section.

14. The method according to claim 12, wherein the sub-component is a wire guide, and the method further comprises:

joining each wire guide to a wire guide cap, the wire guide cap having conducting teeth;
contacting the conductors with the conducting teeth; and
forming a conductive connection between each wire guide and each wire guide cap.

15. The method according to claim 14, wherein the network components are RJ45 connectors and the sub-components are operatively connected to the RJ45 connectors.
16. The method according to claim 14, wherein the network interfaces are patch panels forming network hubs.
17. The method according to claim 14, wherein the network interfaces are a patch panel and a plurality network terminal devices.
18. The method according to claim 14, wherein the sub-components are adapted for reuse with a plurality of components.
19. A method of network wiring installation according to claim 12, further comprising:
- affixing a first sub-component to the plurality of conductors at a first end of the cable;
 - providing strain relief for preventing removal of the conductors from the sub-component.
20. A method of network cabling installation between two network components, comprising:
- h) cutting a plurality of network cables having individual conductors, into predetermined length;

- i) aligning the conductors into a predetermined spatial relationship with respect to each other;
- j) immobilizing said conductors into said spatial relationship;
- k) determining the smallest cross section of space which the cables are intended to pass when installed;
- l) affixing a sub-component of cross section less than said smallest cross section;
- m) testing said cables for continuity
- n) running the cable along a continuous path through encountered obstacles and conduits between first and second network interfaces, the at least one end of the cable deploying proximate the respective interfaces;
- o) joining the first sub-component in conductive connection to a first network component associated with the first network interface; and
- p) joining the second sub-component in conductive connection to a second network component associated with the second network interface;

thereby permitting communication between the first and second network interface.

21. A wiring cage for use with an industry standard base connector, the cage for immobilizing pre-fabricated cables comprising;

- a) a base element having a plurality of grooves for maintaining cable conductors in a fixed spatial relationship to each other;
- b) a guide cap, having conductive elements, for engaging said conductors and immobilizing them from being withdrawn from said grooves; said cap including contacts points exterior thereof for conducting signal from the conductors to said points;
- c) said base connector having a plurality of electrodes for engaging said points on said cap when brought together; and
- d) locking members on said connector extending over said cap for maintaining said cap in intimate engagement with said base connector.

22. The wire cage according to claim 21, wherein said cage has a cross sectional extent small enough to pass through industry standard wiring conduits.

23. The wire cage according to claim 22, further including a strain relief.

24. The wire cage according to claim 22, wherein said contact points include a plurality of teeth.

25 . A wiring cage for use with an industry standard base connector, the cage for immobilizing pre-fabricated cables comprising;

- a) a base element having a plurality of grooves for maintaining cable conductors in a fixed spatial relationship to each other;
- b) a guide cap, having spaced apart apertures, aligned with at least one aperture exposing said conductors to form an aperture array;
- c) said base connector having a plurality of teeth aligned in an array corresponding to the aperture array for engaging said conductors when said cap and said base connector are brought together; and
- d) locking members on said base connector extending over said cap for maintaining said cap in intimate engagement with said base connector.